

## **REMARKS**

Claims 18-28 and 31-34 are pending in the present application

In the Advisory Action the Examiner maintains the rejections which were set forth in the Office Action of April 15, 2004 as being proper.

Claims 18, 20-23, 25, and 27-28 stand rejected under 35 U.S.C. §102(e) as being anticipated by Suzuki (U.S. Patent Number 6,625,160). Applicant respectfully traverses this rejection.

Claims 19, 25, and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of Kessler (U.S. Patent Number 6,567,900). Applicant respectfully traverses this rejection.

Claims 31-34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of McGill (U.S. Patent Number 5,436,886). Applicant respectfully traverses this rejection.

The Applicant' invention is directed to increasing efficiency by increasing the throughput of packets from receivers to transmitters via a crossbar or switch in a node.  
(See specification, page 23 and line 24- page 24, line 1)

Applicant's claim 18 recites

"A node in an interconnect link system comprising:  
a first buffer for receiving a first data segment passing a first criteria based  
on a predetermined one or more bits for the first segment;  
a second buffer for receiving a second data segment passing a second  
criteria based on the predetermined one or more bits for the second  
segment;

a first crossbar for receiving the first data segment from the first buffer;  
and  
a second crossbar for receiving the second data segment from the second  
buffer, such that the first data segment and the second data  
segment are routed to one or more transmitters in one clock cycle  
in the node.”

Rejection of claim under 35 U.S.C. §102(e)

The Examiner has asserted that Suzuki teaches each and every element recited in claim 18. Specifically in the Office Action of April 15, 2004, the Examiner stated “The packets in buffers 516/518 can then be input to the corresponding crossbar scheduler 528/530 for transmission onto output 512/514, such that data packets in buffer 516 can be accessed independently and simultaneously with data packets in buffer 518 (Col. 6, lines 30-35; Col. 10, lines 25-29...”

Suzuki discloses at col. 9, lines 5-7 “Examples of queues are illustrated in FIG. 5 as ingress-egress queues 516-526, each of which is shown respectively connected  
between its associated particular ingress-egress pair.”

Suzuki further discloses at col. 10, lines 57-64

“Illustrated is that both switch egress\_1 512 and switch egress\_2 514 have respectively associated with them (1) excess bandwidth schedulers 600, 604, and (2) guaranteed minimum bandwidth schedulers 602, 606. Each guaranteed minimum bandwidth scheduler for each egress assures that each queue, and consequently each ingress associated with each queue, is given some “guaranteed,” or target, minimum data transmission per unit time”

First, from the foregoing, Applicant respectfully submits that each of the buffers 516-524 are dedicated buffers associated with specific egress ports. Accordingly, the schedulers 528/530 are not crossbars, but schedulers that determine which ingress/egress

pair is selected based on one or more minimum guaranteed bandwidth schemes. The Applicant submits that based upon the drawings of FIG. 5 and FIG. 6, it appears that switch egress 512 and 514 and schedulers 600-606 use two, three input multiplexers to select an ingress/egress pair.

Furthermore, notwithstanding the above, in his rejection of claim 31 (which includes the first and second crossbar limitations), the Examiner acknowledges that Suzuki does not show a first or second crossbar that connects data from the first and second buffer to any of the plurality of output lines. Accordingly, the applicant respectfully submits that the Examiner's rejection of claims 18, 20-23, 25, and 27-28 under 35 U.S.C. §102(e) is improper. The Applicant requests that the rejection be withdrawn.

Accordingly, Applicant believes that claim 18, along with its dependent claims, patentably distinguishes over Suzuki and over Suzuki in view of Kessler for the reasons given above.

#### Rejection of claims 31-34 under 35 U.S.C. §103(a)

As stated above the Examiner has acknowledged that Suzuki does not show a first or second crossbar that connects data from the first and second buffer to any of the plurality of output lines. However, the Examiner asserts that McGill discloses an ATM switch for routing packets between multiple input and output ports. The Examiner further asserts that it would have been obvious to modify the switching node of Suzuki by enabling the first and second crossbars to connect data from the first and the second buffers to any of the plurality of output lines. The Examiner's rationale for such a modification is stated as "such a modification would provide redundancy to enable that data from either buffer may be connected to its appropriate output line if one of the two crossbars failed." The Applicant respectfully disagrees with both the Examiner's assertion that it would have been obvious and his motivation to do so.

Specifically, Applicant can find no reference in Suzuki to failures or redundancy in the event of a failure. The McGill reference is directed to ATM systems in which fiber optic link failures are a common occurrence and as such the interfaces and switches are located on linecards that are replaceable. Accordingly, Applicant submits that since the buffers in Suzuki are dedicated to specific egress ports, there is absolutely no motivation to combine a system of McGill's complexity with Suzuki as the Examiner has suggested.

The MPEP states at § 2143.01 "The fact that the references can be combined or modified is not sufficient to establish *prima facie* obviousness. The mere fact that the references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)... Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." 916 F.2d at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 178 (Fed. Cir. 1992)..."

Accordingly, Applicant believes that claim 31, along with its dependent claims patentably distinguishes over Suzuki in view of McGill for the reasons given above.

## **CONCLUSION**

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-96500.

Respectfully submitted,



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